water for life

summary of results

verification of directions described
in the draft Water for Life Strategy

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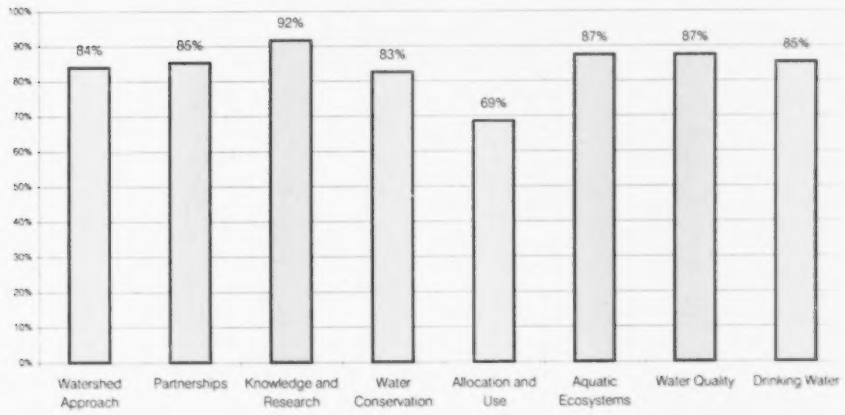
overview of process and results

The purpose of this process was to verify that public and stakeholder advice gathered in spring 2002 was incorporated into the draft of *Water for Life: Alberta's Strategy for Sustainability* in an accurate and useful manner.

Based on public consultations in 2002, Alberta Environment released the draft *Water for Life* strategy (draft strategy) on March 27, 2003. Between then and May 31, 2003 the Department made the draft strategy available to stakeholders and interested Albertans to learn their perceptions about the directions proposed. Comments made at workshops and responses to a questionnaire indicate that Albertans strongly agree with the directions proposed and have specific questions and suggestions about how the draft strategy can be successfully implemented.

Participants in this process supported the major underlying concepts—managing on the basis of watersheds, in partnership with stakeholders—and agreed, in general, with the directions outlined in the draft strategy. The wording of the draft strategy was largely acceptable, but in some cases specific words (for example, "zero discharge", page 48 of the draft strategy) caused concern. A large majority of respondents (91%) agreed in principle that the strategy should place significant emphasis upon a watershed management approach. A high percentage of respondents also agreed, in general, with the actions identified in eight categories (see figure 1).



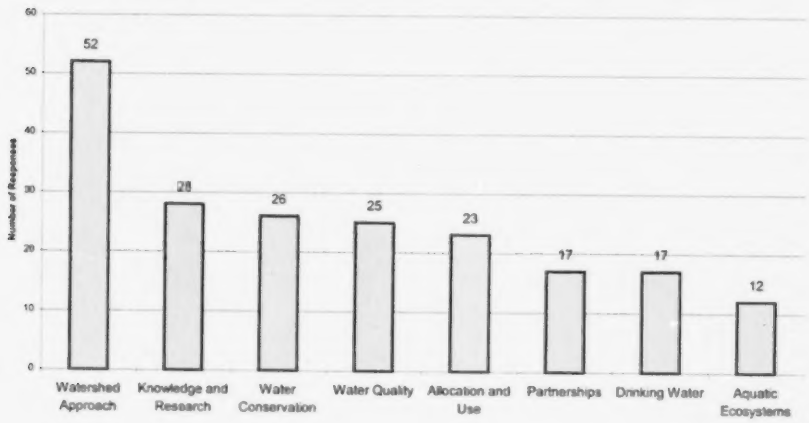
The results suggest that the greatest number of participants agreed with the general direction described in the draft strategy to:

- Improve knowledge and research ;
- Protect the aquatic ecosystem); and
- Protect water quality.

The most common concerns about the draft strategy addressed either (a) the barriers to implementing the policy (examples include funding, resistance to change, lack of required knowledge, lack of specific standards) or (b) possible implications not stated in the actual wording of the draft strategy (examples include the privatization of water delivery systems or downloading of responsibilities to municipalities). Respondents were in least agreement about appropriate actions under the category titled "allocation and use," mainly because there were differences of opinion about whether the "First-in-Time, First-in-Right" principle is an acceptable basis for future water allocation.

While Figure 1 suggests that respondents are in high agreement with the actions noted in the draft strategy, it does not clarify which actions are most urgent. Eighty-four (84) stakeholders who attended workshops were each asked to select three areas where they felt action was most urgent. The following graph (Figure 2) of their responses gives an indication of perceived urgency.

FIGURE 2
Categories which were most frequently selected as one of three "most urgent" areas for implementation.



Respondents supported implementation of the strategy and frequently noted that funding, accessible data, consultation, partnerships and clarity of requirements and roles will be essential to success.

Four general questions about the draft strategy were posted on the Internet along with the draft strategy. Responses of 157 Albertans to these questions provide another indication of how Albertans perceive the draft strategy:

- 81% of respondents agreed or strongly agreed the draft strategy describes the important requirements for sustainable water management in this province.
- 63% of respondents agreed or strongly agreed the draft strategy represents a full range of needs and expectations fairly.
- 70% of respondents agreed or strongly agreed the draft strategy establishes broad direction they can personally support.
- 63% agreed or strongly agreed that implementation of this strategy will significantly improve sustainable management of water in Alberta.

All samples mentioned in this report are small "open" samples, and are not statistically significant.

methodology

The draft strategy was announced publicly (through news releases and correspondence) on March 27, 2003. In order to stimulate external review, and gain specific perceptions and feedback, the draft strategy was mailed to approximately 1,300 Alberta stakeholders(including representatives of municipalities, industries, Aboriginal communities, academic organizations, agricultural sectors and non-government organizations). Included with a copy of the draft strategy, was a verification questionnaire, a pre-paid return envelope and access information to a similar Internet survey. The draft strategy was also made available online at Alberta Environment's web site, along with a brief questionnaire in order to allow any interested Albertan to participate in the verification exercise. Albertans who chose to respond online had the option to also complete a more detailed online questionnaire that is referenced in the "response to questionnaire" notes below. A majority (69%) chose to do so. For those Albertans preferring to receive hard copies of the draft strategy and questionnaire, requests were taken by calling 310-4455 (toll-free), or the Alberta Environment Information Centre.

In addition to this correspondence process, the Alberta Government hosted three meetings in early May 2003: a focus group with representatives of Aboriginal organizations and communities who gathered on May 1, 2003 to informally discuss directions of the draft strategy and identify other concerns (not to raise official positions) and two water strategy workshops (one in Edmonton on May 6 and another in Calgary on May 8). Invited participants at the workshops had previously attended the Minister's

Forum on Water 2002, and used this opportunity to review the ideas and directions of the draft strategy.

response rates

- Over thirty (30) people attended the Aboriginal focus group. (Invitations for a representative were sent to all Alberta treaty organizations, tribal councils, non-member first nations, the Métis Nation of Alberta Association and the Métis Settlements General Council)
- One hundred and eight (108) people were invited to the water strategy workshops in Edmonton and Calgary – 84 people attended.
- Of the approximately 1,300 people and organizations who were mailed the draft strategy and questionnaire, 112 responded either online or by mail.
- Forty-five (45) people chose to complete the initial survey online and of those, 31 completed the detailed questionnaire.
- Fifty-eight (58) written submissions were received (25 non-government organizations, 13 municipalities, 10 individuals, 8 companies, and 2 others).

summary of results

The following summary notes are organized under the same sections used in the draft strategy. Under each section, the notes describe the:

1. response at meetings
2. response to questionnaires (data), and
3. comments from questionnaires.

At the end of this document is a sampling of comments made in written submissions received in response to the draft strategy.

The complete documentation of all results collected by Equus Consulting Group (data and comments from questionnaires, summary and detailed notes from stakeholder meetings and the Aboriginal focus group, and the written submissions) have been provided to, and are available from, Alberta Environment.

1. watershed approach (see pages 14 to 20 of the draft strategy)

The draft strategy emphasized using a multi-stakeholder approach to management, monitoring and priority setting in major basins and sub-basins in Alberta. This approach was widely supported by the participants in this verification process.

1.1 response at meetings

Participants at the water strategy workshops were very supportive of this key direction. Many suggestions were made about how to best implement the approach, including the following:

- Clarify roles and responsibilities early in the process.
- Ensure adequate funding for all councils and groups. Volunteerism is not enough to make this approach work.
- Provide clear guidelines so that watershed advisory councils will be consistent in their approaches.
- Ensure these groups actually have influence–or else, why bother?
- Give more consideration to how water management and land use will be integrated.

At the Aboriginal focus group, there was also support for the idea, but a note that the relationship to First Nation lands must be clarified: "We are looking for a true partnership with the Province. We haven't given up any rights yet." The government was urged to keep communicating with Aboriginal groups about these ideas–don't leave Aboriginal lands out of the discussions.

1.2 response to questionnaires (data)

Question	Response	
Do you support this approach in principle?	No	6
	Yes	130
	No Opinion	7
Do you agree (in general) with the actions identified?	No	15
	Yes	120
	No Opinion	8
Are there any additional actions you feel are important to make this approach successful?	No	46
	Yes	94
	No Opinion	3

1.3 comments from questionnaires

The following comments are indicative of the range oif comments received:

- Money is needed to make advancement...Adequate resource support is needed for watershed-based councils...Without adequate funding these protection groups can achieve very little...Ensure that the Province is financially responsible and coordinates all actions required.
- Define the nature of the watershed planning or frameworks suited to the different levels...Although it is a good approach, it may mean unnecessary duplication in an area that is already in need of harmonization...There must be a consistent message from all departments that this is the way to go... Highlight the visible commitment from key ministries for sectors not subject to the Environmental Protection and Enhancement Act... A total provincial plan is necessary...There must be some interaction between watershed groups [to ensure that] the bigger picture is covered as well...Comprehensive watershed management plans need to be developed and the process specified in legislation and regulations.
- I vote for equal representation from all interested groups...Use a strategic planning matrix involving all government, industry, agriculture and other stakeholders.
- We need to co-ordinate land use planning with water use planning... The land-water relationship is paramount in a watershed approach.
- There is probably an optimum size for certain planning and management functions. Strategic planning is best done at broader scale levels...Clearly define watershed [and] relationship of watershed management group to other jurisdictions...The watershed approach should be further broken down into a farm scale then field scale...Watersheds should be larger in scale, as opposed to smaller...Maybe a limit of 7 watersheds.
- Public awareness and education cannot be overstressed...Make sure the public is advised of all details of inter-province and international agreements and how to renegotiate same...Ensure stakeholders are involved in the process.
- Add a core statement that ground and surface water are linked.
- Advisory councils are a start, but not enough...The plan should run from the bottom up, not the top down...Watershed groups can act as stakeholder groups but need watershed authority [to accomplish watershed management].
- Currently municipal governments have responsibility for water management use within their boundaries....Bring in municipal involvement when reviewing and recommending actions within a watershed...Right now, municipalities have absolutely no ability to protect the watershed...Very important that urban people support watershed management.
- Enforcement is a key issue.

- Watershed management plans must include both surface and groundwater…What happened to the earlier emphasis on GROUNDWATER? …More information about the relationships between surface and groundwater must be available before sound water management planning is in place.
- Engage all publics in the watershed management dialogue. Will there be representation on advisory boards for everyone?
- The creation of "advisory groups" seems to create a duplication of the Watershed Protection Groups that are already in place…How [will] watershed advisory councils [support] community groups? Where is the commitment to ongoing support for watershed advisory councils?
- Our water is too critical a resource to be left to market forces. We need to be able to say "No" to developments if there is insufficient water…What happened to the earlier emphasis about opening up the irrigation water-use for re-allocation?

2. partnerships (see pages 22 to 27 of the draft strategy)

This portion of the draft strategy further elaborated the commitment to develop a partnership approach to water management, engaging Albertans in the watershed management process and encouraging investment in water management from more sources than simply government. This approach was widely supported by participants in the verification process.

2.1 response at meetings

Participants at water strategy workshops were supportive of this key direction. Most stakeholders felt that the partnership ideas were an integral part of the watershed approach (see section 1). Suggestions for improvement of this section included the following:

- The strategy should specifically identify the role of organizations such as municipalities, First Nations and Métis Settlements in the partnerships.
- Do not load formal responsibilities onto partnerships.
- The role of the federal government (especially related to First Nations lands) should be defined in the description of partnerships.
- Do not overload volunteer organizations with formal responsibilities. Do not assume that volunteers can replace adequate support and funding.

At the Aboriginal focus group, the need to involve the federal government was emphasized. As well, the need for a specific partnership with Aboriginal people was

mentioned. One participant noted that: "Advisory councils have no teeth: they only advise. They also have no impact on federal Reserves."

2.2 response to questionnaires (data)

Question	Response	
Do you agree (in general) with the actions identified?	No	14
	Yes	122
	No Opinion	7
Are there any additional actions you feel are important to make this approach successful?	No	46
	Yes	92
	No Opinion	5
Would you personally be prepared to devote time to the kind of initiatives that are outlined in the strategy?	No	15
	Yes	97
	No Opinion	31

2.3 comments from questionnaires

The following kinds of comments were raised:

- Is this another download on municipalities? ...We are opposed to anything that would [delegate] requirements to [municipalities] that they do not have the expertise or resources [to address]...Municipalities and watershed won't fly [because] multiple jurisdictions within a watershed will cause confusion and conflict...Municipalities need provincial policy to guide their management...Municipalities need financial support...There must be both provincial and municipal leadership. Provincial leadership is needed in areas of water quality as well as aspects such as floodplain management.
- Resources, authority and goal identification [are] missing [and] responsibilities are not clear...Any approach must have a clear set of criteria upon which to make decisions or provide advice...This section requires a more clear delineation of the powers of the water advisory council and the municipal governments.
- Not just advisory; shared decision making...Indication of a greater commitment on the part of Alberta Environment to act on the advice of the advisory councils is required.
- Ensure the Provincial Water Advisory Council maintains the broadest spectrum of interests and that members feel their contributions are valued...The problem with partnerships is that some partners are "more equal than others"...What is the role of the public in these partnerships?

- Government will need to show leadership [and help build] a common vision or message...Government has a responsibility to ensure that sound biological and scientific facts are provided to all individuals and partners [involved in partnerships].
- The system of volunteers is not sustainable...Support will have to be substantial, considering the watershed protection groups are volunteer-based...Members of the various advisory councils should be paid on a per diem basis for their time [because] it is extremely difficult to find good people to sit on councils...Government should not relinquish its duties and transfer responsibilities onto the public...Partnerships may work initially, but sustainability is a questions which has not been addressed.
- Is there not a danger of great imbalance between rural and urban? This is skewed too much to the rural users and possible conflicts could arise...
- I do not believe in partnerships; this will lead to privatization...Industry looks only at the bottom line and as such will make recommendations that will be cost effective to them but may be harmful to the ecology.
- Design the Provincial Water Advisory Council and the watershed advisory councils to balance the membership so that no single interest can "hijack" the process... Should include counties and municipal districts along with municipalities.
- If there are three levels of reporting to reach Alberta Environment, the process could become cumbersome and ineffective.
- Provide adequate funding for the ongoing operation and administration of watershed groups.
- Watershed protection groups should have a greater role in the direction of watershed management.
- Do not rely solely upon "volunteerism" for watershed protection.
- It is important to stress to participants in these partnerships that it is THEIR ROLE to communicate [to a] larger group of people.

3. knowledge and research (see pages 28 to 31 of the draft strategy)

The direction to improve knowledge and research about water resources and uses in Alberta was highly supported by all. Many respondents note that sharing of knowledge and information with water users is particularly important.

3.1 response at meetings

Water strategy workshop participants strongly supported the value of improving knowledge and current data available to citizens and decision makers. No major changes to this key direction were suggested. Many participants felt that a great deal of the information needed to support effective water management is already being gathered but is not integrated and not easy to find and use. It was pointed out that partnerships in sharing databases are essential: Alberta Environment must ensure standards for information collection and quality control, and must support integration of the data.

Aboriginal focus group participants noted that access to existing information (data about water quality and habitat condition) is often inadequate. Efforts to provide information to Aboriginal communities should be improved. Aboriginal participants also felt that traditional knowledge must be formally recognized as an important source of information about aquatic ecosystems.

3.2 response to questionnaires (data)

Question	Response	
Do you agree (in general) with the actions identified?	No	2
	Yes	131
	No Opinion	10
Are there any additional actions you feel are important to make this approach successful?	No	53
	Yes	87
	No Opinion	3
Do you think individual Albertans will become better water managers as a result?	No	8
	Yes	105
	No Opinion	30
Will you access this information to improve your own water management practices?	No	8
	Yes	120
	No Opinion	15

3.3 comments from questionnaires

Comments included the following:

- Watershed groups need a database and information that is reliable and readily available. We need a resource library and mapping agency to assist with water management planning…Modeling and monitoring tools should be available to watershed groups…Where is the data to be stored? I can see a problem with

[data from] numerous agencies and private sources not being compatible...The Ministry needs to compile, ASAP, a comprehensive data bank of all available "water reserves" in the entire province.

- Education should be a high priority...I like that you are encouraging the development of a curriculum for all school ages...There should be an emphasis on water science and water issues in Alberta in the formal school curriculum.
- Research is needed on [many] emerging issues [and on] improving the methodology for determining the water requirements for a healthy aquatic environment. Research should be mostly directed at a watershed level...Ensure all watersheds are included...employ remote sensing and satellite telemetry to [establish] benchmarks and detect changes. Alberta Environment should do more of the actual research as opposed to delegating. Government [should not] research the thing to death as it has on past issues. It would be better to adopt the precautionary principle.
- Keep the public informed...Get this information out to everyone...Important that every Albertan is aware of the programs... Make sure that education for adults is available through small towns and municipalities, not just larger centres...Creating public awareness of the problem by research and education programs must be greatly accelerated.

4. water conservation (see pages 32 to 35 of draft strategy)

Water strategy workshop participants supported the key direction outlined under "water conservation," but noted several conditions (or requirements) that would be necessary to ensure appropriate interpretation of the conservation initiative.

4.1 response at meetings

Water strategy workshop participants supported this key direction, but noted that the term "conservation" must be interpreted to mean more than "control water use." Water conservation initiatives should be tied to specific objectives, and the costs of reducing water use should be balanced against benefits that can be gained. There was some concern that the costs of conservation would be borne by a few sectors while the benefits would accrue to others. The meeting participants also noted that:

- Metering is generally a good idea.
- There is no agreement about whether water pricing is appropriate. Some felt pricing would motivate conservation, while others felt that it would simply reduce the cash available for future system improvements.

In the Aboriginal focus group, no specific comments about water conservation were made.

4.2 response to questionnaires (data)

Question	Response	
Do you agree (in general) with the actions identified?	No	17
	Yes	118
	No Opinion	8
Are there any additional actions you feel are important to make this approach successful?	No	46
	Yes	94
	No Opinion	3

4.3 comments from questionnaires

The following comments are indicative of the range of comments received:

- New technologies should be investigated.
- Increase in penalties for wasteful use of water.
- Water pricing should not be tied to conservation...Charging for raw water isn't a viable option...The free trade implications of water pricing should be considered...Water pricing should recognize the difference between use and consumption.
- Metering only large customers. Small individuals would cause too much bureaucracy...Strongly support the actions on metering which the City of Edmonton has had in place for years...Make use of water meters mandatory...Water metering for agricultural producers needs to be handled with lots of consultation.
- All fresh water injection must stop...Charge oil companies enough for taking water out of the water cycle that they have an incentive to find new ways to recover oil.
- Transfers will not promote conservation, but will lead to every drop of available water being used.
- Implementation of actions should be community-based.
- I do not agree with the term "pricing"...This is obviously a "set-up" to start taxing Albertans under the flimsy pretext of so-called "user fees" to suck more money out of their pockets for using a natural resource that BELONGS to taxpayers in the first place.

- We need to do a cost-benefit analysis of the major consumptive uses of water like irrigation... What is the "conserved" water to be used for? Does it make sense to spend $1000 to free up water that is then employed for a $50 benefit?
- Councils [must] draft and recommend legislation that will begin our conservation efforts. Voluntary conservation efforts simply do not work.

5. water allocation and use (see pages 36 to 39 of the draft strategy)

Albertans are concerned about how to allocate water appropriately when there is a scarcity. However, there are differing views about whether "First-in-Time, First-in-Right" is the best approach to water allocation for the future. Some participants were concerned that implementation of a "highest use" principle could create undesirable results.

5.1 response at meetings

While water strategy workshop participants agreed that government should examine how to ensure "best use" of water occurs, they had many cautions about putting this concept into practice. There was no overall agreement on the best approach to future allocation of water. Several participants noted this uncertainty about future water allocation may inhibit investment in the province.
Other themes that emerged in the meetings:

- "First-in-Time, First-in-Right" may be too rigid an allocation rule for the long-term in a changing world.
- Water transfers have a role, but could result in water access being transferred to the highest bidder.
- Review of water licences is a good thing generally, but industries have economic cycles that result in lower water use in some years.
- Criteria for "best use" of water are needed.

In the Aboriginal focus group, there was concern about the role of the Province in allocating water. The First Nations interpret "First-in-Time, First-in-Right" as an affirmation of their heritage rights to water.

5.2 response to questionnaires (data)

Question	Response	
Do you agree (in general) with the actions identified?	No	37
	Yes	98
	No Opinion	8
Are there any additional actions you feel are important to make this approach successful?	No	52
	Yes	77
	No Opinion	14

5.3 comments from questionnaires

The following comments are indicative of the range of comments received:

- "First-in-Time, First-in-Right" [FITFIR] is an antiquated concept…[FITFIR] should be amended to [favour] water users that use state of the art technology to conserve water…Examine quantities in existing licences and ensure they are justified and a cost-effective use of the water…FITFIR has to change….There should be conditions attached to [FITFIR] to maximize water conservation efforts…The "use it or lose it" provisions should be acted upon as soon as possible.. Provide all water users with the rationale for the [FITFIR] principle and explain why it should continue…Need to take a closer look at [FITFIR].
- There should be no transfers between the three major watersheds [Arctic, Hudson's Bay, Mississippi]…If there are allocation transfers to new water users, to allow for a higher value use, then a mechanism of compensation must be implemented…No to transfers, yes to the other three strategies…Water may be reallocated within a major river basin, but no transfer of water between major river systems should be allowed…Prohibition [of transfer] on the basis of "major river basin" may not be appropriate in all situations…Don't guarantee an inter-basin transfer…If it proves to damage the eco-system, you must be able to cancel the transfer.
- Fresh water should not be considered a commodity…Using "market mechanisms" to raise the "price" of water will be suicidal for irrigation farmers.. I fully support water pricing and believe that all Albertans must understand that water is a precious resource.
- More inland water storage is needed.
- I do not support the "market concept" of water allocation…Water transfers within a water basin will not be facilitated through market mechanisms…water is too critical a resource to be left to market forces…It is not acceptable to completely withdraw a long-standing business' rights to water.

- [Consider] the introduction of a voluntary water credit program, wherein a major consumptive water user could receive financial credits for shutting down water consumption [temporarily, during drought].

6. aquatic ecosystems (see pages 40 to 45 of the draft strategy)

Respondents expressed strong support for the concept of increasing emphasis on protection of aquatic ecosystems. Many wanted to see more explicit description of efforts to include and protect riparian areas.

6.1 response at meetings

Participants at the water strategy workshops agreed aquatic ecosystems must be conserved, but not all were sure new initiatives were necessary to achieve this end. They felt the health of aquatic systems is closely related to the quality of our water (and drinking water) and should be an integral part of watershed management. Some of the discussion themes that emerged:

- Benchmarks are needed and more scientific study is necessary to establish these benchmarks.
- Wetlands and riparian habitats should be inventoried and evaluated in each basin.
- Traditional (and local) knowledge can lead us to ask the right questions about water quality changes and their effects.

At the Aboriginal focus group, there was high concern about the state of our aquatic ecosystems. Aboriginal people mostly believe that aquatic ecosystems have deteriorated. Some participants pointed out that the traditional knowledge of Aboriginal communities can be integrated with scientific studies–providing important indicators of changes that science should investigate further. Others noted the potential for satellite monitoring (GIS) to measure ecosystem condition and monitor changes.

6.2 response to questionnaires (data)

Question	Response	
Do you agree (in general) with the actions identified?	No	7
	Yes	125
	No Opinion	11
Are there any additional actions you feel are important to make this approach successful?	No	64
	Yes	75
	No Opinion	4

6.3 comments from questionnaires

The following comments are indicative of the range of comments received:

- Need more legislative and enforcement actions to halt the loss of wetlands…Please connect forests with wetlands [best management practices are important]…Establish a policy to maintain and preserve wetlands…there is a balance. Wetlands are important but so is improved infrastructure…Must establish a no net loss policy for wetlands, river and other aquatic ecosystems…Who would monitor conditions of wetlands?
- The protection of the aquatic ecosystem should be [first] on the priority list… Aquatic ecosystems must be defined and managed with the inclusion of riparian habitat…Ecological protection should be the foundation of the water strategy. Identify sensitive aquatic environments that require additional protection and integrate protection with watershed and land use management…Functioning ecosystems must be the primary allocation of water…the ecosystem should not play a competing role with the economy in the strategy.
- Ensuring a science-based approach is key to the success of this initiative. I would like data to be available [showing] the impact of our current rate of growth on our water supply and water quality…Proper monitoring and reporting on the health of Alberta's aquatic ecosystem is not possible without adequate funding and staffing.
- Partner with groups interested in conservation.
- All efforts should be made to protect wetlands.
- Include riparian areas in the definition of aquatic ecosystems…Ensure that riparian areas are included in the definition of aquatic ecosystems.
- Full access to all information; don't hide things the Province doesn't like…Require municipalities to report on their portion of the watershed.

7. water quality (see pages 46 to 49 of the draft strategy)

Respondents supported the general direction contained in this part of the draft strategy, but felt that the specific actions, requirements and roles should be more specific.

7.1 response at meetings

Water strategy workshop participants supported the key direction, but noted a lack of detail about implementation of this part of the strategy. Participants questioned the mechanism that could be used to affect land-based activities in relation to water quality and also questioned the use of the term "zero discharge" in the document (this term did not seem practical). Other themes that emerged:

- Local involvement is key to improving water quality.
- Enforcement is required, in addition to standards and monitoring.
- Public water quality reporting will improve attention to quarter quality management at the local level.
- There should be incentives for industry to continually improve, using best available technology.

Aboriginal focus group participants expressed concern about water quality and supported ideas that would provide greater assurance that water is not being polluted by industry. Most wanted more protective measures in place.

7.2 response to questionnaires (data)

Question	Response	
Do you agree (in general) with the actions identified?	No	9
	Yes	125
	No Opinion	9
Are there any additional actions you feel are important to make this approach successful?	No	61
	Yes	79
	No Opinion	3

7.3 comments from questionnaires

The following comments are indicative of the range of comments received:

- Zero discharge needs to be defined…Do not agree striving for "zero discharge" is a realistic objective…Balance "zero discharge" between the costs and benefits of removal.
- Education and money will also need to be in place…Education on source control for private citizens [is a cost-efficient method] for improving water quality…An education program is required on lakeshore developments… Make education of the various facets an absolute priority.
- Who is responsible to undertake the actions and cover the costs?…Who has funding authority and jurisdiction to implement these principles?…Who has the teeth to intervene?… Partnerships are important.
- Much of the pollution comes from urban developments…City sewage all drains into our watershed…Ensure pesticide use in cities is done only when absolutely necessary…Pesticides and fertilizers are probably abused to a greater extent in urban settings…Cities need resources and legislation to ensure outfall technology is implemented and storm water facilities are upgraded.
- Enforce existing legislation…Enforce the regulations…Establish monitoring systems that can quickly establish infractions of usage and have significant penalties established and enforced.
- Monitoring of feedlots and large animal concentrations…Large agricultural activities such as feedlots as well as certain types of industrial enterprises are sometimes major polluters of groundwater and must be closely supervised… The Environmentally Sustainable Agriculture program [has a] longstanding water quality monitoring program.
- Pollution sources must be reduced in a fair and consistent manner across all areas…ensure that no grandfather clauses are implemented…There should be no grandfathering or exceptions.
- There is a need to update current standards used to assess water quality… Science-based criteria for water quality goals.
- Clear statement of using a continuous quality improvement approach rather than benchmarking and enforcement…Consultants should be hired to review quality assurance in water management programs.
- Water quality objectives and water quality protection need legislation…the only sustainable water management policy is that users of water return the water in the same quantity and the same (or better) quality than they found it.
- Upgrade wastewater treatment plants…Province must fund smaller municipal sewage systems to decrease pollutants… Require municipalities to produce source protection and drainage master plans.

8. drinking water (see pages 50 to 55 of the draft strategy)

Respondents largely supported the strategies and actions under this portion of the draft strategy, but pointed out that major changes are needed in water supply systems (particularly in rural areas and small municipalities). Implementing the strategy will require considerable funding support. The link between protecting the environment (clean source waters) and clean drinking water was emphasized by several respondents.

8.1 response at meetings

Two major areas of focus emerged within the discussions at the water strategy workshops about drinking water: supporting rural areas and smaller municipalities, and taking a "whole system" (multi-barrier to contaminants) approach. The following points were raised:

- Protection of source waters is the most important thing we can do.
- Some rural areas are deeply concerned that their water is not safe to drink and require financial support to improve their water systems.
- Regional water supply systems should be investigated (especially with the expansion of rural acreage subdivisions).
- Water system operators need better information about the quality of supply waters coming into the system.

Provision of an assured supply of safe drinking water was a significant concern raised at the Aboriginal focus group. Participants noted than many First Nations communities are in remote areas and cannot afford to build and maintain sophisticated water treatment plants. They indicated the Province should cooperate with the federal government, who are currently investigating this concern.

8.2 response to questionnaires (data)

Question	Response	
Do you agree (in general) with the actions identified?	No	9
	Yes	122
	No Opinion	12
Are there any additional actions you feel are important to make this approach successful?	No	70
	Yes	71
	No Opinion	2

8.3 comments from questionnaires

The following comments are indicative of the range of comments received:

- Province must monetarily compensate smaller municipalities for increased costs associated with higher standards…Review alternative methods of supplying high standard drinking water to smaller systems and rural Albertans…Small municipalities need to be educated on water…Dedicate funds to rural water systems.
- Accessibility to having well water tested must be improved…Provide a better system for getting results of a water sample sent to a provincial lab.
- The private sector has no place in the delivery of drinking water… I am concerned that "full cost accounting" is simply a euphemism for privatized water…Require all drinking water sold in Alberta to meet Alberta Environment quality rules–including bottled water…I have grave reservations about public/private partnerships when dealing with water delivery.
- I'd like to see something more specific about protecting drinking water sources from agricultural contamination…Using "end of pipe" fixes for drinking water quality has limits [which have been] exceeded in many parts of the province. The only way to have reasonably priced and safe drinking water is to control upstream pollution.
- Provincial government must be willing to [provide funds for] regionalization… Enhance and restructure financial assistance to facilitate regionalization of systems…Regional systems are required in the Calgary region but the business case won't work without funding…The Province needs to do more than support and facilitate regional water and wastewater systems… Regionalized or community water supply is the way to go…There is currently a disconnect between infrastructure grants and the goal to encourage regional water solutions.
- Who has jurisdiction on drinking water quality? …Continue to have high standards for drinking water.
- Bring the true cost of potable water onto the water bill as a priority…Full cost accounting for water supply is useless.

written submissions

In addition to the responses noted above, there were 58 submissions that provided detailed views about the ideas in the draft strategy. These submissions were forwarded to Alberta Environment for analysis by policy developers in preparation for the finalized provincial water strategy. Many views in these submissions are reflected in the comments noted above. However, a few comments from the submissions are provided

here to give the reader a sense of what Albertans in various sectors had to say about the draft strategy. As it would be impossible to include all of the comments, the following notes provide a general indication of the views expressed.

municipalities

Based on the responses received, municipalities are very supportive of the water strategy in principle and particularly strong in their support of initiatives under "aquatic ecosystems," "watershed approach" and "water quality." However, municipalities note that they have a very significant role to play in the strategy and they want (a) clear definition of that role, (b) increased funding and technical support, and (c) clear relationships between themselves and government related to water management issues. The majority of municipal respondents oppose inter-basin transfers of water on any scale (unless study shows that such transfers are beneficial) and want more clarity about how water management and land management will be integrated.

corporations

Private corporations responding to the water strategy were supportive of the strategy in principle, but raised the following concerns and suggestions (these are individual highlights–all respondents do not necessarily share all of these views):

- Water pricing can be viewed as a tax and will favour some industries over others (perhaps charges should only apply if the water is not returned in suitable condition).
- Advisory councils could be inefficient and ineffective, or could make decisions about land uses more complex–government should lead and make these decisions (e.g. Alberta Environment remains responsible for source protection).
- New developments should be required to evaluate their impact on the watershed and the use of water resources (instead of government determining where development should best be done).
- Industry needs clear guidelines about allocation rules and must have assured water supply–questioning existing allocations on the basis of use over a limited time period could erode confidence (alternately, some questioned whether "first in time" provides a reasonable basis for future allocation).
- Our knowledge about groundwater resources and surface-groundwater interactions must be improved.
- Our knowledge about priority areas at risk and cumulative contamination in each watershed must be improved.
- Mandatory metering of water use is generally a good thing (this does not imply support for a raw water charge).

- Government must examine where incentives are in place that encourage use, rather than conservation, of water.
- Watershed advisory councils should establish the targets and indicators for their own watershed.

agricultural organizations

Based on the responses received, agricultural organizations (both producers and irrigation districts) expressed support in principle for the water strategy, while raising the following suggestions and concerns:

- Balance local decision-making with provincial goals and policies (the concern is that local councils may result in a patchwork of inconsistent "on the ground" initiatives and decisions)...Ensure clear roles and responsibilities for advisory groups.
- Data that is already in-hand should be used where possible, and the need for water users to collect additional data should not be onerous.
- Water pricing is equivalent to a new tax and is not a good way to achieve water conservation.
- Encouraging development in areas where there is water is not the right way to proceed, and may not have a beneficial effect upon water conservation.
- Enhancement of water storage in southern Alberta is needed.
- Maintain "First-in-Time, First-in-Right" allocations and use voluntary transfer mechanisms where necessary to adjust water allocations.
- "Beneficial use" approaches and "use it or lose it" strategies are potentially damaging to agriculture and will not result in improved water conservation.
- "Zero discharge" is neither desirable nor possible.
- Imposing regulatory approval on private water sources is not desirable.

non-government organizations

A wide range of non-government organizations provided submissions, each raising specific themes for consideration. Among the themes raised were the following:

- The watershed approach could lead to a lack of clarity in an area that requires centralized management based on common principles...The proposed model appears to be too complex...The watershed approach (and partnerships) as described relies too heavily on volunteers...Fear that too many resources will be necessary for three kinds of advisory councils.

- Examine the range of tools to promote conservation...Pricing deserves thorough study...Pricing would convert water into a commodity and affect competition.
- If pricing is to be used as a conservation method, then the federal government must be involved and must negotiate a side agreement that excludes water from NAFTA.
- Water pricing and polluter charges would be excellent tools to promote water conservation (however, new user fees are not acceptable if they are not matched by a reduction in taxes).
- Metering may not be justifiable (high cost, questionable value).
- Government must ensure that watershed targets are consistent (from one basin to another) and equitable.
- If allocation transfers are to be used, then water may be seen as a commodity in the marketplace...There would have to be provisions to ensure that licence holders cannot withhold from transfer any allocation that is unused.
- Zero discharge is a noble goal, but is it possible?
- Riparian areas must be explicitly included in aquatic ecosystems.
- Inter-basin transfers are unacceptable as an alternative to conservation and planning.
- The opening of the aquatic ecosystem section should be reworded: too much emphasis upon human needs.
- Wetlands must be preserved.
- Priorities are not obvious; all water management issues are not of equal importance or urgency...At the Minister's Forum there was a note that "there must be a clear legal notation that drinking water is the highest priority for water use."
- Use risk-based decision making to establish priorities.
- Health concerns should not be subjugated to economic interests.
- Training of water treatment personnel and waste management personnel will be critical, as will accreditation of laboratory facilities.

conclusion

The intention of this process was to test the ideas in the draft Water for Life strategy and verify that the draft accurately described the expectations of Albertans. There was strong support for the directions of the strategy. Albertans feel these are important matters that deserve the attention of the Province, in partnership with municipalities, non-government organizations, Aboriginal groups and other sectors involved in water management. While there are differing views about water allocation, these may be

resolved if other aspects of the strategy, especially watershed management and partnerships, are effectively implemented. These results suggest that Albertans want to see action, particularly in developing a watershed management approach and in improving knowledge and research needed for effective water management.